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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 08/661,834
Filing Date: June 11, 1996
Appellant(s): KRONZER ET AL.

Frank S. Rosenberg
For Appellant

SUPPLEMENTAL
EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/14/2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 25-37 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

Appellant's brief includes a statement that claims 25-37 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

Claim 33 contain(s) substantial errors as presented in the Appendix to the brief. Accordingly, claim 33 is correctly written in the Appendix to the Examiner's Answer.

(9) Prior Art of Record

4,807,619 DYRUD ET AL. 02-1989

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 25-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyrud et al. ('619).

As to claim 25, Dyrud et al.('619) disclose a fibrous face mask (figs.1-3) for filtering contaminants and/or particulate matter, which comprises: a means (12) for securing the mask to the face of a wearer; and a non-woven fibrous layer (disclosed as a shaping layer) attached (col.3, lines 13-15) to the securing means and containing at least about 40% weight thermally bonding fibers based on the weight of the in the non-woven fibrous layer, at least about 10% weight of the fibers in the non-woven layer being bicomponent fibers, and optionally staple fibers, the non-woven fibrous layer being molded in a cup-shaped configuration. As for the claimed weight ratios of at least 40% weight thermally bonding fibers and at least 10% weight bicomponent fibers in the non-wovwn layer, applicant is referred to Dyrud et al. (col.4, lines 29-37) which discloses weight ratios ranging from 0% staple fibers:100% bicomponent fibers to 75% staple

fibers:25% bicomponent fibers, a range which includes the claimed values of 40% thermally bonding fibers and 10% bicomponent fibers.

As for the claimed "surface fuzz value" of not less than 7.5, since Dyrud et al. disclose thermally bonding fibers having bicomponent fibers as well as staple fibers (col.4, lines 29-37)in a plurality weight percent ratios which includes 40 wt.% thermally bonding fibers and at least about 10 wt.% bicomponent fibers, it is submitted that the process of molding which includes the use of heat as disclosed by Dyrud et al. would have resulted in a shaping layer having a surface fuzz value inlcluding one which is not less than 7.5.

As to claim 26, Dyrud et al. as discussed above disclose a wide range of weight percent of fibers making up the non-woven layers which include the claimed weight per cent of fibers. Moreover, Dyrud et al. disclose a plurality of non-woven layers having filtration layer of blown microfibers therebetween (fig.2 and col.6, line 63-col.7, line 20).

As to claims 27-31, and claims 33-37, the particular values of weight per cent of the bicomponent fibers in Dyrud et al. can be arrived at through mere routine experimentation and observation with no criticality seen in the particular values being claimed. The surface fuzz values resulting from the heated molding process disclosed by Dyrud et al. and a given proportion of specific fibers would result in a shaping layer having a plurality of surface fuzz values in dependence upon the particular selection of fibers.

Claim 32 with the exception of the optional inclusion of staple fibers is substantially equivalent in scope to claim 25 and is included in Dyrud et al. for the reasons set forth above with respect to claim 25.

In the response to Appellants' Request for Rehearing, the Board of Appeals interpreted the scope of claim 25 as defining four different face masks, two of which are as follows: 1. A non-woven fibrous layer (disclosed as a shaping layer) attached (col.3, lines 13-15) to the securing means and containing (i) at least about 40 wt.% thermally bonding fibers based on the weight of the fibers in the non-woven fibrous layer, at least 10 wt. % of the fibers in the non-woven fibrous layer being bicomponent fibers, the non-woven fibrous layer being molded in a cup-shaped configuration and having a surface fuzz factor of not less than 7.5 after being subjected to a surface fuzz abrasion test. As for the claimed weight ratios of at least 40% weight thermally bonding fibers and at least 10% weight bicomponent fibers in the non-wovwn layer, applicant is referred to Dyrud et al. (col.4, lines 29-37) which discloses weight ratios ranging from 0% staple fibers:100% bicomponent fibers to 75% staple fibers:25% bicomponent fibers, a range which includes the claimed values of 40% thermally bonding fibers and 10% bicomponent fibers. As for the claimed "surface fuzz value" of not less than 7.5, since Dyrud et al. disclose thermally bonding fibers having bicomponent fibers as well as staple fibers (col.4, lines 29-37)in a plurality weight percent ratios which includes 40 wt.% thermally bonding fibers and at least about 10 wt.% bicomponent fibers, it is submitted that the process of molding which includes the use of heat as disclosed by Dyrud et al. would have resulted in a shaping layer having a surface fuzz value inlcluding one which is not less than 7.5.

2. The non-woven fibrous layer recited in (1) further comprising staple fibers. As for the claimed weight ratios of at least 40% weight thermally bonding fibers and at least 10% weight bicomponent fibers in the non-wovwn layer, applicant is referred to Dyrud et al. (col.4, lines 29-37) which discloses weight ratios ranging from 0% staple fibers:100% bicomponent fibers to 75% staple fibers:25% bicomponent fibers, a range which includes the claimed values of 40% thermally bonding fibers and 10% bicomponent fibers.

In the response to Appellants' Request for Rehearing, the Board of Appeals interpreted the scope of claim 32 as defining two different fibrous layers, at least one as follows:

1. A nonwoven fibrous layer attached to the harness and containing at least 40 weight percent thermally bonding fibers based on the weight of the fibers in the nonwoven fibrous layer, at least 10 weight percent of the fibers in the nonwoven fibrous layer being bicomponent fibers, the nonwoven fibrous layer being molded in a cup-shaped configuration and having a surface fuzz value of not less than 7.5 after being subjected to a surface fuzz abrasion test. As for the claimed weight ratios of at least 40% weight thermally bonding fibers and at least 10% weight bicomponent fibers in the non-wovwn layer, applicant is referred to Dyrud et al. (col.4, lines 29-37) which discloses weight ratios ranging from 0% staple fibers:100% bicomponent fibers to 75% staple fibers:25% bicomponent fibers, a range which includes the claimed values of 40% thermally bonding fibers and 10% bicomponent fibers. As for the claimed "surface fuzz value" of not less than 7.5, since Dyrud et al. disclose thermally bonding fibers having bicomponent fibers as well as staple fibers (col.4, lines 29-37)in a plurality weight

percent ratios which includes 40 wt.% thermally bonding fibers and at least about 10 wt.% bicomponent fibers, it is submitted that the process of molding which includes the use of heat as disclosed by Dyrud et al. would have resulted in a shaping layer having a surface fuzz value inlcluding one which is not less than 7.5.

Response to Arguments

Applicant's arguments filed 06/04/2002 have been fully considered but they are not persuasive.

Applicants' arguments including the Kronzer Declaration which seek to establish that the surface fuzz values obtained from testing six mask samples of Example 26 of Table I of the instant specification never exceeded 8.0 are persuasive; however, the alternative language (as outlined by the Board of Appeals in the Resonse to Appellants' Request for Rehearing, pages 4 and 5) which is employed in each of claims 25 and 32 (i.e. "with the proviso") does not limit the surface fuzz value to an amount which greater than 8.0 as argued. Accordingly, inasmuch as claims 25 and 32 define a fibrous filtration face mask having surface fuzz value which is either 7.5 or greater than 8.0, Dyrud et al. continue to be a valid prior art reference which is properly readable upon claims 25-37.

Applicants' arguments regarding the inherency of the fuzz value of the Dyrud et al. mask is persuasive with respect to a surface fuzz value which exceeds 8.0; however, as to face masks having fuzz values of 7.5-8.0, even a mask made by the Dyrud et al. methods does produce masks having surface fuzz values of 8.0 as established in Table I of the instant specification and as established in the Kronzer declaration as accompanying pages of laboratory notebook.

As to applicants' arguments regarding the selection of a particular amount of a given constituent from a disclosed range, it is submitted that one of ordinary skill having the Dyrud et al. disclosure would be free to choose an amount of a constituent from the disclosed range. The selection of a particular amount of a constituent including 40 wt.% thermally bonding fibers and 10 wt.% bicomponent fibers would have been an obvious matter of design choice in dependence upon the desirability of one of ordinary skill to achieve such desired results as greater filtration, rigidity of shape and increased comfort.

(11) Response to Argument

As to appellants' assertion that the Board of Appeals erred in its interpretation of claims 25-37 (most specifically, independent claims 25 and 32), it is submitted that in response to appellants' request for rehearing, the Board of Appeals established proper interpretation (including a delineation of limitations which are optional) of claims 25-37 as set forth on pages 4 and 5 of the decision to grant appellants' request for rehearing dated 09/30/2002. In view of said interpretation and in accordance therewith, claims 25-37 were considered in light of the prior art reference Dyrud et al. ('619) as set forth in the final rejection dated 05/16/2003. The Board of Appeals interpretation of claim 25 properly points out that in order for the claimed fibrous filtration face mask to have a surface fuzz value which exceeds 8.0 one of the following must also be positively claimed: 1. the bicomponent fiber content must also be 85 weight percent or greater OR 2. the bicomponent fiber content must also be 85 weight percent or greater and further comprise staple fibers. NEITHER of these two conditions is required by the language of

claim 25 because each of these conditions is recited in the alternative. Therefore, given the broadest reasonable interpretation of claim 25, the language requires only that the claimed fibrous filtration face mask comprise at least 10 weight percent of bicomponent fibers and a surface fuzz value of not less than 7.5 (see pages 4 and 5 of the decision to grant appellants' request for rehearing dated 09/30/2002). Accordingly, Dyrud et al. continues to be properly applicable as prior art for the reasons set forth above in the body of the rejection.

Appellants' reliance upon Table I on page 21 of the instant specification to prove that the surface fuzz value of the fibrous filtration face mask of Dyrud et al. cannot be at least 7.5 is not persuasive because example #26 from Lot 318A (see Kronzer Declaration page 2 and lab notebook pages 28 and 29) illustrate a fibrous filtration face mask made by hot molding (consistent with the Dyrud et al. '619 method) having a surface fuzz value of 8.0 and containing 100 weight percent bicomponent fibers in the case of lot 318A and 70 weight percent in the case of lot 316B. The results of these two lots exemplify situations in which hot molded fibrous filtration face masks having bicomponent fiber content of less than 85 weight percent (i.e. 70 in lot 316B) and greater than 85 weight percent (i.e. 100 in lot 318A) do result in surface fuzz values of 8.0 which are not less than 7.5 as required by the claim language. Therefore, one of ordinary skill would have ample reason to expect that a fibrous filtration face mask made by Dyrud et al. '619 and having "at least about 10 wt.% of the fibers in the non-woven fibrous layer being bicomponent fibers" (see part (b) of claim 25) would result in such a mask having a surface fuzz value of not less than 7.5 as required by the

language of each of claims 25 and 32. Further, while examples 24 and 25 result in surface fuzz values of 5.0 and 6.0, one of ordinary skill would appreciate that experimental results vary from one test example to another and these two test examples do not definitively establish that surface fuzz values of greater than 7.5 cannot be obtained from Dyrud et al. '619 hot molding of fibrous filtration face masks having less than 85 weight percent bicomponent fiber content as illustrated by the laboratory results of lot 316B attached to the Kronzer declaration.

As to appellants' arguments regarding the selection of a particular amount of a given constituent from disclosed range, it is submitted that one of ordinary skill having the Dyrud et al. disclosure would be free to choose an amount of a constituent from the disclosed range. The selection of a particular amount of a constituent including 40 wt.% thermally bonding fibers and 10 wt.% bicomponent fibers would have been an obvious matter of design choice in dependence upon the desirability of one of ordinary skill to achieve such desired results as greater filtration, rigidity of shape and increased comfort.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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March 3, 2005

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APPENDIX TO SUPPLEMENTAL EXAMINER'S ANSWER

Claim 33. The fibrous filtration mask of claim 32, wherein the nonwoven fibrous layer contains at least 20 weight percent bicomponent fiber and the surface fuzz value is not less than 8.4 regardless of bicomponent fiber content after being subjected to a surface fuzz abrasion test.